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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

EDMONDSON, LYNNE RENEE

ART UNIT	PAPER NUMBER
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1725

DATE MAILED: 08/01/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/913,014

Examiner

Lynne Edmondson

Applicant(s)

FAN ET AL.

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-- **Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --**
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4. 6) ☐ Other:

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DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

2. Claims 1-5, 7-9, 13, 14 and 16-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Walker et al. (USPN 5734108).

Walker teaches an apparatus and method for detecting the oscillation amplitude of an oscillating object by placing an object between radiation detecting means and an optical radiation source (104) located opposite each other wherein first and second sensing areas (from each 104 sensor) are used and a processor is coupled to the detectors to receive output signals representing the radiation sensed as an indication of object oscillation amplitude (figure 1, col 9 line 36 – col 10 line 10 and col 11 lines 1-28). The processor monitors and controls output (col 34 line 51 – col 35 line 41) based on the signals received as compared to a reference value (col 14 line 59 – col 15 line 34, col 19 line 57 – col 20 line 40). Amplitude is controlled in real time (col 16 lines 50-65). The sensing areas are adjacent and directed toward opposing sources as shown in

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figure 1. The sensing areas are not directed toward the source and comprise directing optics in another embodiment (figures 16-18). See also Walker claims 1-7, 16-25 and 26-33.

3. Claims 1-7 and 9-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Maruyama et al. (USPN 6323943).

Maruyama teaches an apparatus and method for detecting the oscillation amplitude of an oscillating object by placing an object between radiation detecting means and an optical radiation source located opposite each other wherein first and second sensing areas (2) are used and a processor is coupled to the detectors to receive output signals representing the radiation sensed as an indication of object oscillation amplitude (figures 6, 46, 51, col 10 line 53 – col 11 line 53 and col 26 line 31 – col 27 line 65). See also col 24 lines 1-52 and col 21 lines 1-53. The processor monitors and controls output based on the signals received as compared to a reference value (col 4 lines 3-39 and col 27 line 48 – col 28 line 42) for ultrasonic wave control. Amplitude is controlled in real time (col 23 lines 59-67). The sensing areas are adjacent and directed toward opposing sources as shown in figures 46 and 51. The width of the sensing areas is greater than the half width and amplitude of the oscillating object (col 3 lines 6-30 and col 8 lines 20-53). The oscillating object is an ultrasonic transducer of a welder or wire bonder (col 5 lines 10-36 and col 27 lines 1-2). See also Maruyama claims 1-43.

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Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kinrot et al. (USPN 6424407 B1, method and apparatus), O'Meara et al. (USPN 6285514 B1, method, apparatus, equation), von Raben (USPN 4854494), Siu (USPN 6181431 B1) and Kajiwara et al. (USPN 54313254).

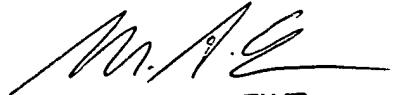
5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lynne Edmondson whose telephone number is (703) 306-5699. The examiner can normally be reached on M-F from 7-4 with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dunn can be reached on (703) 308-3318. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7118 for regular communications and (703) 305-7115 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0651.

Lynne Edmondson
Examiner
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LRE
July 25, 2002


M. ALEXANDRA ELVE
PRIMARY EXAMINER